#16 Appeal Brief
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[600.1027]

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

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Re:	Application of:	David Elliot WHITTEN
	Serial No.:	09/456,869
	Filed:	December 8, 1999
	For:	DEVICE FOR SEIZING OF FLAT MATERIAL ON A TRANSPORTING SURFACE
	Art Unit:	3721
	Examiner:	Eugen Lee KIM

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BOARD OF PATENT APPEALS AND INTERFERENCES

BOX: APPEAL
Assistant Commissioner for Patents
Washington, DC 20231

December 17, 2002

APPELLANTS' BRIEF UNDER 37 C.F.R. § 1.192

Sir:

Appellants submit this brief for the consideration of the Board of Patent Appeals and Interferences (the "Board") in support of their appeal of the Final Rejection dated July 3, 2002 in this application. An original and two copies of this brief are submitted herewith. The statutory fee of $320.00 is paid concurrently herewith.

1. REAL PARTY IN INTEREST

The real party in interest is Heidelberger Druckmaschinen AG, a German corporation having a place of business at Kurfuersten-Anlage 52-60, D-69115 Heidelberg, Germany, the assignee of the entire right, title and interest in the above-identified patent application. The invention was assigned by inventor Whitten to

Heidelberger Druckmaschinen AG. The assignment was recorded on February 16, 2000 at reel 010608, frame 0355.

2. RELATED APPEALS AND INTERFERENCES

Appellants, their legal representatives, and assignee are not aware of any appeal or interference that directly affects, will be directly affected by, or will have a bearing on the Board's decision in this appeal.

3. STATUS OF CLAIMS

Claims 1 to 21 appear in this application. Claims 1 to 13 and 15 to 21 have been finally rejected as per the Final Office Action dated July 3, 2002. Claim 14 was withdrawn from consideration.

The rejection to claims 1 to 13 and 15 to 21 thus is appealed. A copy of appealed claims 1 to 13 and 15 to 21 is attached hereto as Appendix A.

4. STATUS OF AMENDMENTS AFTER FINAL

No amendments subsequent to the final rejection were filed. A Response to Final Office Action requesting reconsideration without any claim amendments was filed on September 16, 2002 and was considered in the Advisory Action of September 26, 2002.

5. SUMMARY OF THE INVENTION

The present invention provides a folder for printed products including a first cylinder (e.g., 7 in Fig. 1, see, e.g., specification at page 5, lines 27 to 29) with a surface (e.g., 15 in Fig. 1, see, e.g., specification at page 6, lines 2 to 4) and having knife assemblies (e.g., 12 in Fig. 2, see, e.g., specification at page 6, lines 22 to 23) assigned to the surface (e.g., 15 in Fig. 1, see, e.g., specification at page 6, lines 2 to 4); a paper-conducting cylinder (e.g., 14 in Fig. 1, see, e.g., specification at page 6, lines 2 to 4) having an outer circumference (e.g., 15 in Fig. 1, see, e.g., specification at page 7, lines 19 to 21) and supporting a flat material on the outer circumference. The first cylinder (e.g., 7 in Fig. 1, see, e.g., specification at page 5, lines 27 to 29) having

a biased product seizing element (e.g., 27 in Fig. 2, see, e.g., specification at page 6, lines 27 to 29) assigned to the surface (e.g., 15 in Fig. 1, see, e.g., specification at page 6, lines 2 to 4) of the first cylinder (e.g., 7 in Fig. 1, see, e.g., specification at page 5, lines 27 to 29) the biased product seizing element (e.g., 27 in Fig. 2, see, e.g., specification at page 6, lines 27 to 29) engaging said flat material received on the outer circumference (e.g., 15 in Fig. 1, see, e.g., specification at page 6, lines 2 to 4) of the paper-conducting cylinder (e.g., 14 in Fig. 1, see, e.g., specification at page 6, lines 2 to 4) so as to hold the flat material on the paper-conducting cylinder. At least one product gripper (e.g., 17 in Fig. 1, see, e.g., specification at page 6, lines 4 to 6) is attached to the paper-conducting cylinder (e.g., 14 in Fig. 1, see, e.g., specification at page 6, lines 2 to 4) for rotation therewith, the product gripper (e.g., 17 in Fig. 1, see, e.g., specification at page 6, lines 4 to 6) selectively extending beyond the outer circumference (e.g., 15 in Fig. 1, see, e.g., specification at page 6, lines 2 to 4) of the paper-conducting cylinder (e.g., 14 in Fig. 1, see, e.g., specification at page 6, lines 2 to 4) to hold the flat material against the outer circumference. The disclosure thus also describes a method for folding printed products.

6. ISSUES

Whether claims 1 to 11 and 16 to 21 should be rejected under 35 U.S.C. § 103 as being unpatentable over Price (U.S. Patent No. 880,465) in view of Nagano (U.S. Patent No. 5,921,906).

Whether claim 12 should be rejected under 35 U.S.C. § 103 as being unpatentable over Price (U.S. Patent No. 880,465) in view of Nagano (U.S. Patent No. 5,921,906).

Whether claims 13 and 15 should be rejected under 35 U.S.C. § 103 as being unpatentable over Price (U.S. Patent No. 880,465) in view of Nagano (U.S. Patent No. 5,921,906).

7. GROUPING OF CLAIMS

Since the claims do not stand or fall together, the following claim groupings are appropriate:

Group I: Claims 1 to 11 and 16 to 21 directed to a folder for printed products;

Group II: Claim 12 directed to a pinless folder apparatus for processing a flat material comprising; and

Group III: Claims 13 and 15 directed to a method for holding a flat material in a folder of a printing press on different supporting surfaces.

8. ARGUMENTS

The issues presented are whether claims 1 to 11 and 16 to 21 should be rejected under 35 U.S.C. § 103 as being unpatentable over Price (U.S. Patent No. 880,465) in view of Nagano (U.S. Patent No. 5,921,906), whether claim 12 should be rejected under 35 U.S.C. § 103 as being unpatentable over Price (U.S. Patent No. 880,465) in view of Nagano (U.S. Patent No. 5,921,906), and whether claims 13 and 15 should be rejected under 35 U.S.C. § 103 as being unpatentable over Price (U.S. Patent No. 880,465) in view of Nagano (U.S. Patent No. 5,921,906).

Price discloses a cutting mechanism for a gum wrapping machine. A feeder wheel 2 rotates and has pockets 23 for receiving a piece of gum. Plungers 25 have a small pin 29 to hold the gum in place. Paper 39 from spool 40 passes between the outer surface of wheel 2 and a stationary guard 37extending partially around the circumference of the wheel 2. The guard 37 prevents the gum from being flung out of the pockets 23 due to centrifugal forces. The wheel 2 thus rotates with respect to guard 37. As the paper exits guard 37, a cutting roller 54 cuts the paper as knives 56, 57 enter a groove 58 in wheel 2. Plungers 60 then hold the paper on wheel 2 until the paper passes between guide 59 and wheel 2. Guide 59 is stationary and has a spring to aid in permitting plungers 60 to pass by the guide 59.

Nagano discloses a pinless folder having a cut-off knife and a hold-down blade. The cut-off knife cuts the web and the hold down blade folds the front edge into a gap, where a gripper board grips the front end of the web. Paper presses 42a, 42b of cut off cylinder 40 create a nip with the folding cylinder 41.

Group I

Claim 1 of the present invention recites:

"a first cylinder having a surface and having knife assemblies assigned to the surface;

a paper-conducting cylinder having an outer circumference and supporting a flat material on the outer circumference;

the first cylinder having a biased product seizing element assigned to the surface of the first cylinder, the biased product seizing element engaging said flat material received on the outer circumference of the paper-conducting cylinder so as to hold the flat material on the paper-conducting cylinder; and

at least one product gripper attached to the paper conducting cylinder for rotation therewith, the product gripper selectively extending beyond the outer circumference of the paper conducting cylinder to hold the flat material against the outer circumference."

Claim 1 thus requires that a product gripper of the paper conducting cylinder *selectively extends beyond the outer circumference of the paper conducting cylinder.* Independent claim 16 has a similar limitation.

Price discloses a cutting roller 54 with knives 56, 57. Plunger 60 holds the gum wrapping material against wheel 2.

Price does not disclose a product gripper attached to wheel 2.

Nagano shows a pinless folder with a paper press fixed with respect to a cut-off cylinder 40.

It is respectfully submitted that the paper presses 42b of Nagano are not product grippers. Product grippers grip a paper to hold them, as shown by elements 17 in Figs. 1 and 2 of the present invention. A paper press is not a gripper, and is fact is the opposite- it presses the paper away from a cylinder, and does not grip the paper to hold the flat material against the cylinder as claimed. Nagano's paper press 42b actually teaches away from using a gripper.

Also the paper press 42b of Nagano does not selectively "extend beyond the outer circumference" as they are fixed and define the outer circumference. Fixed elements also cannot *selectively extend* beyond the outer circumference, as claimed in claim 1.

In addition, elements 42b of Nagano are not fixed to a paper conducting cylinder as claimed but rather to a cut-off cylinder with knives. If anything Nagano teaches placing the paper presses on the knife roller 54 of Price, which would not have lead one of skill in the art to view the claimed invention as obvious.

Thus neither Price nor Nagano show the claim limitation in claim 1 of "at least one product gripper attached to the paper conducting cylinder for rotation therewith, the product gripper selectively extending beyond the outer circumference of the paper conducting cylinder to hold the flat material against the outer circumference."

Moreover, it is respectfully submitted that it would not have been obvious to modify the Price device with such a gripper, as the stationary guards required by Price would prevent the implementation of such a gripper.

Withdrawal of the rejections to the claims of Group I is respectfully requested.

GROUP II

Claim 12 recites a pinless folder apparatus for processing a flat material comprising:

a first cylinder having a circumference and having knife assemblies assigned to the circumference;

a paper conducting cylinder having an outer circumference and supporting a flat material on the outer circumference;

a biased product seizing element assigned to the outer circumference; and

a biased seizing element assigned to the circumference of the first cylinder adopting an engaging position upon cooperation with said flat material received on said outer circumference.

Price discloses a cutting roller 54 with knives 56, 57. Plunger 60 holds the gum wrapping material against wheel 2.

Price does not disclose a seizing element attached to wheel 2.

Nagano shows a pinless folder with a paper press fixed with respect to a cut-off cylinder 40.

Claim 12 requires a product seizing element assigned to the outer circumference of the paper conducting cylinder and a seizing element assigned to the

circumference of the first cylinder. It is respectfully submitted that the paper press 42b of Nagano is not a "product seizing element" as recited in claim 12. Moreover paper press 42 is not biased at all. The paper press 42 also does not "seize" anything, but rather presses it away from the cylinder.

In addition, elements 42b of Nagano are not fixed to a paper conducting cylinder as claimed but rather to a cut-off cylinder with knives. If anything Nagano teaches placing the paper presses on the knife roller 54 of Price, which would not have lead one of skill in the art to view the claimed invention as obvious.

Thus neither Price nor Nagano show the claim limitation in claim 12 of a seizing element assigned to the circumference of the paper conducting cylinder.

Withdrawal of the rejection to the claim of Group II is respectfully requested as well.

Group III

Claim 13 recited a method including:

"supporting a leading edge of a web of material on a first supporting surface of a paper conducting cylinder with a biased product seizing element in a first engaged position, the biased product seizing element being on another cylinder cooperating with the paper conducting cylinder;

having a product seizing element adopt a first disengaged position upon entry of the web of material in a cutting area; and

gripping the leading edge with a gripper while the biased product seizing element is in the first engaged position, the product gripper extending beyond an outer circumference of the other cylinder to hold the leading edge against the outer circumference."

Claim 13 thus recites specific method steps.

Price discloses holding the leading edge of a strip of material against wheel 2 with plunger 60 on wheel 54.

Nagano shows a fixed paper press 42b pressing a paper in a nip.

Neither Price nor Nagano show the step of "gripping the leading edge with a gripper" via paper press 42b. The paper press also does not extend beyond an outer

circumference.

Moreover, in Nagano *the leading edge* of the web is not held against the outer circumference of cylinder 41, as claimed in claim 13, but is bent over to extend inside the circumference.

Withdrawal of the rejection to the claims of Group III is thus respectfully requested as well.

Respectfully submitted,

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APPENDIX A:

PENDING CLAIMS 1 to 13 and 15 to 21 OF U.S.
APPLICATION SERIAL NO. 09/456,869

1. (Twice Amended) A folder for printed products comprising:

a first cylinder having a surface and having knife assemblies assigned to the surface;

a paper-conducting cylinder having an outer circumference and supporting a flat material on the outer circumference;

the first cylinder having a biased product seizing element assigned to the surface of the first cylinder, the biased product seizing element engaging said flat material received on the outer circumference of the paper-conducting cylinder so as to hold the flat material on the paper-conducting cylinder; and

at least one product gripper attached to the paper conducting cylinder for rotation therewith, the product gripper selectively extending beyond the outer circumference of the paper conducting cylinder to hold the flat material against the outer circumference.

2. The device as recited in claim 1 wherein said product seizing element in the engaging position punctually engages on a leading edge of a web of material.

3. The device as recited in claim 1 wherein said product seizing element is located extending over the width of the surface of the first cylinder.

4. The device as recited in claim 1 wherein said product seizing element is biased by a pretensioning element.

5. The device as recited in claim 1 wherein said product seizing element is mounted in an inclined orientation with respect to one of the knife assemblies.

6. The device as recited in claim 1 wherein said product seizing element is received in a respective knife box mounted in a periphery of said first cylinder.

7. The device as recited in claim 1 wherein said product seizing element comprises rounded head portions.

8. The device as recited in claim 1 wherein said product seizing element is equipped with a friction reducing coating.

9. The device as recited in claim 1 wherein said product seizing element in the engaged position seizes a respective leading edge adjacent to the impact zone of said knife assemblies.

10. The device as recited in claim 1 wherein the product seizing element is biased through a pressure source.

11. (Twice Amended) A paper conducting assembly in a folder apparatus, comprising:

a first cylinder having a circumference and knife assemblies assigned to the circumference;

a paper conducting cylinder having an outer circumference and supporting a flat material on the outer circumference; a biased product seizing element assigned to the circumference of said first cylinder engaging said flat material on said outer circumference so as to hold the flat material on the paper conducting cylinder; and at least one product gripper attached to the paper conducting cylinder for rotation therewith, the product gripper selectively extending beyond the outer circumference of the paper conducting cylinder to hold the flat material against the outer circumference.

12. A pinless folder apparatus for processing a flat material comprising:

a first cylinder having a circumference and having knife assemblies assigned to the circumference;

a paper conducting cylinder having an outer circumference and supporting a flat material on the outer circumference;

a biased product seizing element assigned to the outer circumference; and

a biased seizing element assigned to the circumference of the first cylinder adopting an engaging position upon cooperation with said flat material received on said outer circumference.

13. (Twice Amended) A method for holding a flat material in a folder of a printing press on different supporting surfaces comprising the steps of:

supporting a leading edge of a web of material on a first supporting surface of a paper conducting cylinder with a biased product seizing element in a first engaged position, the biased product seizing element being on another cylinder cooperating with the paper conducting cylinder;

having a product seizing element adopt a first disengaged position upon entry of the web of material in a cutting area; and

gripping the leading edge with a gripper while the biased product seizing element is in the first engaged position, the product gripper extending beyond an outer circumference of the other cylinder to hold the leading edge against the outer circumference.

15. (Amended) The method as recited in claim 13 wherein said product seizing element adopts a second disengaged position after the gripping step.

16. (Amended) A device for seizing a flat material on a transporting surface comprising:

a first cylinder having a surface and having knife assemblies assigned to the surface;

a paper-conducting cylinder having an outer circumference and supporting a flat material on the outer circumference; and

a biased engaging bolt assigned to the surface, the biased engaging bolt adopting an engaging position upon cooperation with said flat material received on the outer circumference; and

at least one product gripper attached to the paper conducting cylinder for rotation therewith, the product gripper selectively extending beyond the outer circumference of the paper conducting cylinder to hold the flat material against the outer circumference.

17. (New) The device as recited in claim 16 wherein said engaging bolt is received in a respective knife box mounted in a periphery of said first cylinder.

18. (New) The device as recited in claim 16 wherein said engaging bolt comprises rounded head portions.

19. (New) The device as recited in claim 16 wherein said engaging bolt is equipped with a friction reducing coating.

20. (New) The device as recited in claim 16 wherein said engaging bolt is biased by a pretensioning element.

21. (New) The device as recited in claim 16 wherein said engaging bolt in the engaged position seizes a respective leading edge adjacent to the impact zone of said knife assemblies.